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LEUTMAN, Ya.P.

Technological progress in the Samarkand Canning Plant. Kons.1
ov.prom. 18 no.1:9-11 Ja '63. (MIRA 16:2)

1. Samrkandskiy konservnyy zavod.
(Samarkand--Canning industry)

SHATENSHTeyN, V.G.; LEYTMAN, Ya.Z.; TEMNIK, V.G.

Effect of the DB wetting agent on the increase of the bulk density of the coal charge. Koks i khim. no.2:11-13 '64. (MIRA 17:4)

1. KommunarSKIY koksokhimicheskiy zavod (for Shatenshteyn, Leytman).
2. KommunarSKIY gorno-metallurgicheskiy institut (for Temnik).

LEYTMAN, Ya.Z.; MARKOV, V.V.

New methods for the analysis of the soda-potash solution used for sulfur removal. Koks i khim. no.7:50-52 '65.

(MIRA 18:8)

1. Kommunarskiy koksokhimicheskiy zavod.

SAMOYLOVICH, B.I.; LEYTMAN, Yu.S.; LYAPINA, L.I.; KOPYSITSKIY, T.I.

Economic efficiency of the introduction of an automatic-temperature control system in the reactor of a catalytic cracking device. Izv. vys. ucheb. zav.; neft' i gaz 6 no.8:83-86 '63. (MIRA 17:6)

1. Azerbaydzhanskiy institut nefti i khimii imeni M. Azizbekova i Nauchno-issledovatel'skiy i proyektnyy institut po kompleksnoy avtomatizatsii proizvodstvennykh protsessov v neftyanoy i khimicheskoy promyshlennosti.

ABDULLAYEV, A.A.; KOPYSITSKIY, T.I.; LEYTMAN, Yu.S.; MAMED-ZADE, A.G.;
KHALDEY, Z.V.

Temperature-control system for a catalytic-cracking reactor
with a finely divided catalyst. Nefteper. i neftekhim. no.8:19-22
'63. (MIRA 17:8)

1. Nauchno-issledovatel'skiy i proyektnyy institut po kompleksnoy
avtomatizatsii proizvodstvennykh protsessov v neftyanoy i khimi-
cheskoy promyshlennosti, g. Baku.

ALIYEV, T.M.; LEYTMAN, Yu.S.; MAMEDOV, F.I.; STEPANOV, V.P.

Determination of the tar content of fuel oils. Khim. i tekhn. topl.
i masel 6 no. 12:15-18 D '61. (MIRA 15:1)

1. NIPINeftekhimavtomat.
(Petroleum as fuel) (Tar)

SAVVATIMOVA, L.N.; KAPLAN, G.A.; LEYTMAN, Yu.S.

Optimum planning of the operations of petroleum refineries. Za
tekh.prog. 3 no.12:43-45 D '63. (MIRA 17:2)

1. Nauchno-issledovatel'skiy proyektnyy institut "Neftekhimavtomat".

LEXMAN, Yu.S.; SAMOYLOVICH, B.I.; KERBITSKIY, B.N.; LYAPINA, I.I.

Economic effectiveness of the use of a DU-1 vapor tension controller
in a system for stabilizing gasoline. Izv.vys.ucheb.zav.; neft' i
gaz 7 no.4:101-104 '64. (MIRA 17:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni Azizbekova i
Nauchno-issledovatel'skiy i proyektnyy institut po kompleksnoy
avtomatizatsii proizvodstvennykh protsessov v neftyanoy i
khimicheskoy promyshlennosti.

LEYTSIN, G.A.

USSR/Chemical Technology. Chemical Products and their Application.
Glass. Ceramics. Construction Materials.

J-12

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27781

Author : N.B. Mar'yamov, G.A. Leytsin.

Inst :

Title : Computation of Heat Liberation of Concrete at Its Treatment
with Dry Heat.

Orig Pub: Beton i zhelezobeton, 1956, No 10, 367. Corrections: 1956,
No 12, 452.

Abstract: The formulae for the computation of the magnitude of heat liberation by cement depending on the temperature of the medium, the duration of heating of concrete and of the ratio water/cement are given. It is proposed to use the obtained results for the thermal computations of autoclaves and for the determination of optimum regimes of humid-hot treatment of concrete.

Card : 1/1

-125-

ANAN'YEV, K.N.; LEVITSIN, M.N.

Constructing radio relay lines in the mountains of Kirghizi-
stan. Elektrosviaz' 10 no.10:74-76 O '56. (MLRA 9:11)
(Kirghizistan--Radio relay systems)

AUTHOR: Leytsin, V.A.

SOV/136-59-3-11/21

TITLE: Formation of Volatile Germanium Compounds During Cementation Processes and Possible Methods of Retaining Germanium From the Gas Phase (Obrazovaniye letuchikh germano-vodorodnykh soyedineniy v protsessakh tsementatsii i vozmozhnyye metody ulavlivaniya germaniya iz gazovoy fazy)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 3, pp 44 - 49 (USSR)

ABSTRACT: This work, in which Engineer Z.D. Donets participated, was undertaken because considerable losses of germanium were occurring during the reduction by zinc dust of metals from solutions obtained in the dust and oxide plant. The author outlines some published data on the properties and formation of germanium hydrides (which could be a source of germanium loss). His experiments on hydride formation were carried out with 0.5-litre portions of solutions prepared from pure germanium dioxide. Cementation was carried out for 2 hours in the cold, the gases being passed through an absorbing train. Germanium in samples was determined colorimetrically with the use of phenyl-fluorone. The quantity of the element converted to hydride being calculated by difference. The author admits

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SOV/136-59-3-11/21
 Formation of Volatile Germanium Compounds During Cementation
 Processes and Possible Methods of Retaining Germanium From the Gas
 Phase

the dubious nature of this procedure but claims it is necessitated by the absence of reliable methods of trapping the hydrides: he gives evidence to support the suitability of the procedure for his purposes. It was found that (Table 1) the amount of germanium converted to hydrides rises with increasing acidity of the solution (initial H_2SO_4 - concentration 0 - 200 g/litre) from 2-3 to 20-40%. In these experiments the solution contained 123 mg/litre Ge and a 500-fold (with respect to germanium) quantity of zinc dust was used. When the zinc dust quantity was varied from 100 - 1 000-fold the conversion to hydride was found to be less for low dust quantities and high acidity. Introduction of electropositive copper and arsenic ions greatly increased germanium conversion to hydrides; cadmium and ferrous-iron ions had little effect (Table 2). Tests with technical solutions containing 20-25 mg/litre Ge, 0.5-2 g/litre As as well as some cadmium, indium and several rare metals showed that

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SOV/136-59-3-11/21
Formation of Volatile Germanium Compounds During Cementation
Processes and Possible Methods of Retaining Germanium From the Gas
Phase

germanium conversion to the hydride could be 30-70%. The effectiveness of various methods of absorbing the germanium from its hydrides was tested using 500 ml portions of a solution containing 36.0 mg/litre Ge, 0.5 g/litre As, 49 mg/litre Cu and 90 g/litre H_2SO_4 . The most effective

(Table 4) was to pass the gases through a tube at 400-500 °C but because of the danger of explosion if air enters, this line was not pursued. Aqueous $KMnO_4$ solutions (25-50 g/litre $KMnO_4$) were found to be 50-60% effective

but only when the technical germanium-containing solutions were used (Table 5). The author recommends that the zinc-dust method of removing arsenic and heavy metals should be replaced by, for example, the sulphate method, in order to improve germanium recovery. There are 5 tables and 6 Soviet references.

Card 3/3

SOV/136- 59-5-12/21

AUTHORS: Levtsin, V.A. and Gorbunov, A.M.

TITLE: Influence of Charge Composition on Lead Recovery in Smelting Waste Zinc Cake (Vliyaniye sostava shikhty na izvlecheniye svintsa pri vel'tsevanii otval'nykh tsinkovykh kekov)

PERIODICAL: Tsvetnyye metally, 1959, Nr 5 pp 59-62 (USSR)

ABSTRACT: All Soviet zinc electrolytic works smelt waste zinc cake to recover zinc, lead, cadmium and other elements. Lead recovery varies from 75 to 95% and the present work aimed at studying the effect of charge composition on the behaviour of lead during smelting. This process involves reduction of metal compounds, distillation of volatile metals and compounds and oxidation of metal vapours in the gas off-take. At the Chelyabinskiy elektrolitnyy tsinkovyy zavod (Chelyabinsk Electrolytic Zinc Works) a mixture of cakes is used containing 18-24% total Zn, 0.15-0.22% Cd, 2.5-4.0% Pb, 20-25% Fe, 7-9% total S, 9-13% SiO₂, 0.8-1.2% MgO, 1.8-2.7% CaO, 11-15% H₂O (table 3 gives compositions of components). In the dried mixture lead occurs in the sulphate, oxide, sulphide, silicate and other forms (Table 4), of which

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SOV/136-59-5-12/21

Influence of Charge Composition on Lead Recovery in Smelting Waste Zinc Cake

sulphide is the most favourable for recovery. An analysis of 1955-1958 operating data for the works was carried out. Fig 1 shows plots against time of lead contents in the cake and clinker, of calculated lead recovery in the clinker and copper-content in the cake. The data indicate that lead losses in clinker rise with rising lead content in the cake; the losses increase with increasing cake copper-content (over 2-3%). Fig 2 shows frequency curves for clinker- and cake-lead contents for less than 3% Cu (curve 1) and over 3% Cu (curve 2). Tests confirmed the effectiveness of reducing cake copper contents for improving lead recovery (Table 6).

Card 2/2 There are 2 figures, 6 tables and 4 Soviet references.
ASSOCIATION: Chelyabinskiy Tsinkovyy Zavod (Chelyabinsk Zinc Works)

LETSIN, V.A.

Second letter. Solubility of germanium dioxide. Izv.vys.
uch.zav.; khim.i khim.tekh. 5 no.4:679-681 '62. (MIRA 15:12)
(Germanium oxide)
(Solubility)

GUZAIROV, R.S.; LEYTSIN, V.A.; GREKOV, S.D.

Solubility and the product of solubility of indium pyrophosphates.
Zhur.neorg.khim. 9 no.1:20-24 Ja '64. (MIRA 17:2)

1. Chelyabinskiy elektrolitnyy tsinkovyy zavod.

LEYTSIN, V.A.

Complex compounds of germanium with gallic acid. Zhur. neorg.
khim. 9 no.9:2256-2257 S '64. (MIRA 17:11)

1. Chelyabinskiy pedagogicheskiy institut.

L 26671-66 EWT(1)/EWP(e)/EWP(m)/EWT(m)/EWP(j)/ETC(m)-6/EWA(1) IG/WW/RM
 ACC NR: AP6007187 SOURCE CODE: UR/0170/66/010/002/0212/0216

AUTHORS: Leytsina, V. G.; Pavlyukevich, N. V.

ORG: Institute of Heat and Mass Transfer, AN BSSR, Minsk (Institut teplo- i
 massoobmena AN BSSR)

TITLE: On sublimation of a thin plate in a gas current

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 10, no. 2, 1966, 212-216

TOPIC TAGS: gas flow, heat transfer, lamina, flow, sublimation, naphthalene,
 Prandtl number, temperature distribution

ABSTRACT: The sublimation of a thin plate in the laminar flow of hot air is in-
 vestigated. The plate is assumed to have a temperature distribution given by

$$T_1(x, y, t) = T_0 - q(x, t)(y - D),$$

with a constant back surface temperature. The governing time-dependent, two-
 dimensional equations are written for the gas-vapor mixture, and the solution is
 obtained for small times as

$$D = \frac{1}{2} \frac{p_\infty}{\rho_1} \frac{(v_\infty u_\infty)^{1/2}}{\sqrt{x}} \frac{\Phi(0)}{\sqrt{x}},$$

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UDC: 532.517.2

L 26671-66

ACC NR: AP6007167

where D is the surface recession rate. In the steady state regime, the momentum equation becomes the same as that of Blasius, and a simplified solution is obtained under the assumption of Lewis and Prandtl numbers being unity. As a special case, the equilibrium sublimation of naphthalene is calculated, with the saturation pressure of its vapor being represented by

$$p = \exp(a - b/(d + T_s))$$

Orig. art. has: 25 equations.

SUB CODE: 20/ SUBM DATE: 03May65/ ORIG REF: 007

Card 2/2

B.W.

RUBINCHIK, Ya.S.; PAVLYUCHENKO, M.M.; SYBUL'KO, I.A.; LEYTSINA, V.G.

Kinetics of formation of magnesium ferrite from magnesium and iron oxides. Dokl. AN BSSR 8 no.10:654-656 0 '64.

(MIRA 18:3)

1. Institut obshchey i neorganicheskoy khimii AN BSSR.

L 61816-65 EWG(j)/EWI(m)/EPF(c)/EWP(t)/EWP(b) Pr-4/Pe-4 IJP(c) JD/JW

ACCESSION NR: AP5018249

UR/0078/65/010/007/1663/1667

546.654-31-546.641-31-546.723-31

30
28
B

AUTHOR: Rubinchik, Ya. S.; Pavlyuchenko, M. M.; Taybul'ko, I. A.; Leytsina, V.G.

TITLE: Reactions of lanthanum oxide and yttrium oxide with ferric oxide

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 7, 1965, 1663-1667

TOPIC TAGS: lanthanum oxide, yttrium oxide, iron oxide, garnet, perovskite

ABSTRACT: The course of the reaction was followed by means of chemical, x-ray, magnetic, and spectrophotometric analyses, and certain factors affecting the reaction rate were determined. The oxide mixture $Y_2O_3:Fe_2O_3$ (1:1 and 3:5) was reacted at 900-1400C. $YFeO_3$ and $Y_3Fe_5O_{12}$ were identified as the products by x-ray diffraction. At 1200C, the oxides convert completely into the final product, a garnet, which is responsible for the ferromagnetic properties observed. Formation of garnet proceeds via the formation of a perovskite, which begins to react with excess Fe_2O_3 at 1100C to give garnet. The reaction is very fast during the first 10 min. The apparent activation energy was calculated to be 20 kcal/mole for the initial period; this relatively low value indicates that

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L 61816-65

ACCESSION NR: AP5018249

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surface diffusion, not volume diffusion, of the ions through the layer of the product plays a major part. The reaction between La_2O_3 and Fe_2O_3 was studied at 700-1400C. For a 1:1 ratio of the oxides, the compound LaFeO_3 is formed already at 700C. The presence of this perovskite phase was shown by an unusually strong reflection with $\theta = 67^\circ 24'$, corresponding to an interplanar distance of 1.049 Å. The reaction is complete at 1300C. As in the preceding case, the reaction is fast at first, then slows down. The activation energy for the initial period is 32.8 kcal/mole. Orig. art. has: 4 figures and 5 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk BSSR
(Institute of General and Inorganic Chemistry, Academy of Sciences, BSSR)

SUBMITTED: 02Jan64

ENCL: 00

SUB CODE: IC

NO REF SOV: 001

OTHER: 009

Card

2/2

LEYTSIS, P.; ALFEROVA, A.I., agronom po zashchite rasteniy (Maloyaroslavetskiy rayon, Kaluzhskoy obl.)

Following up our articles. Zashch. rast. ot vred. i bol. 6 no.12:
19 D '61. (MIRA 16:5)

1. Direktor Leningradskoy stantsii po raku kartofelya (for Leytsis).

LEYTSIS, P.R.

In defense of chloropierin. Zashch. rast. ot vred. i bol. 8 no.12:
44 D '63. (MIRA 17:3)

1. Leningradskaya stantsiya po raku kartofelya Vsesoyuznogo instituta zashchity rasteniy.

IVANOV, A.P.; LEYTSYNA, V.G.; PUPLIKOVA, I.N.

Determination of the concentration of several dyes simultaneously
adsorbed on fiber. Zhur.anal.khim. 17 no.4:511-517 J1 '62.
(MIRA 15:8)

1. Institute of Physics, Academy of Sciences of the Byelorussian
S.S.R., Minsk.

(Dyes and dyeing--Textile fibers) (Spectrum analysis)

GINZBURG, Yevgeniy Grigor'yevich; SHAMANIN, Aleksandr Vasil'yevich;
KOLCHIN, N.I., prof. doktor tekhn.nauk, red.; TURETSKIY, I.Yu.,
red.; LEYTUS, L.S., inzh., retsenzent; VASIL'YEVA, V.P., red.
izd-va; POL'SKAYA, R.G., tekhn.red.

[Standardisation in the manufacture of gear wheels] Tipovye
tekhnologicheskie protsaessy izgotovleniya zubchatykh koles.
Pod obshchei red. N.I.Kolchina. Moskva, Gos. nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1958. 126 p. (Bibliotekhka
zubareza-novatora, no.2) (MIRA 11:5)
(Gear cutting)

FEL'ZENBAUM, V.G., kand. ekonon. nauk; DAVYDOVA, F.I., inzh.; LEYTUSH,
T.L., inzh.; ZAVELEV, V.S., inzh.

- Promote fully the production and use of nonmetal pipes.
Stroi. mat. 10 no. 9:10-11 My '84. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut asbesta, silyudy,
asbestotsementnykh izdeliy i proyektirovaniya stroitel'stva
predpriyatiy slyudyayemykh promyshlennosti (for Leytush, Zavelov).

DAVYDOVA, F.L.; LEYTUSH, T.L.; FEL'ZENBAUM, V.G.; ZAVELEV, V.G.

One and a half times more pipes from the same raw material.
Stroi. mat. 9 no.10:5-7 0 '63. (MIRA 16:11)

YUZHAK, S.I., kand.tekhn.nauk; LEVY, G.Yu.Ya., inzh.

Improving the installation of heat exchanger units. Sudostroenie 25
no.2:39-41 F '59. (MIRA 12:4)

(Heat exchangers)
(Marine engineering)

LIBER, Isaak Semenovich; LEVY, Zh.Ya., inzh., nauchnyy red.; KAPLAN, M.Ya.,
red.izd-vs; PUL'KINA, Ye.A., tekhn.red.

[Large precast sanitary-engineering construction elements for
apartment houses] Sbornye ukрупnennyye elementy sanitarno-
tekhnicheskikh ustroystv zhilykh domov. Leningrad, Gos.izd-vo
lit-ry po stroitel'stvu, arkhitekt. i stroit.materialam, 1960.
123 p. (MIRA 13:5)

(Precast concrete construction)
(Sanitary engineering)

LEYVI, D.S.; NAZAROV, N.S.

[Science in Soviet Tajikistan; bibliographical index, 1951-1960] Nauka v Sovetskom Tadzhikistane; bibliograficheskii ukazatel', 1951-1960 gg. Dushanbe, 1963. 121 p. (MIRA 17:4)

1. Akademiya nauk Tadzhikskoy SSR, Dushanbe. Tsentral'naya nauchnaya biblioteka.

LEYVI, I.D.

Trichomonas infections of the male urogenital system according to materials from the Ashkhabad Dermatovenereological Dispensary. Zdrav.Turk. 6 no.2:29-30 Mr-Apr '62. (MIRA 15:11)

1. Iz Ashkhabadskogo gorodskogo kozhno-venerologicheskogo dispansera (glavnyy vrach - I.D.Leyvi).
(TRICHOMONIASIS) (GENITOURINARY ORGANS--DISEASES)

LEYVIKOV, L.G., dotsent

Functional capacity of the pancreas in rheumatic fever in children.
Zdrav.Kazakh. 16 no.12:16-21 '56. (MIRA 10:2)

1. Iz kafedry pediatrii (zaveduyushchiy kafedroy - professor E.A. Gornitskaya) 1-go Leningradskogo gosudarstvennogo meditsinskogo instituta i iz kafedry pediatrii (zaveduyushchiy kafedroy - dotsent. L.G.Leyvikov) Karagandinskogo gosudarstvennogo meditsinskogo instituta.

(RHEUMATIC FEVER) (PANCREAS--SECRETIONS)

USSR/Pharmacology. Toxicology. Chemotherapeutic
Preparations. Anti-Tuberculous Remedies.

V

Abs Jour: Ref. Zhur. - Biol., No 22, 1958, 102924

Author : Leyvikov, L. G.

Inst : Karaganda Medical Institute

Title : On the Problem of Application of Streptomycin
in Tuberculosis.

Orig Pub: Tr. Karagandinsk. med. in-ta, 1957, 1, No. 7,
460-463

Abstract: No abstract

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LEYVIKOV, L.G., dotsent

Functional capacity of the pancreas in dysentery in children. Sov.
med. 21 no.3:17-21 Mr '57. (MIRA 10:7)

1. Iz kafedry pediatrii i Leningradskogo meditsinskogo instituta
(sav. - prof. E.A.Gornitskaya) i kafedry pediatrii Karagandinskogo
meditsinskogo instituta (sav. - dotsent L.G.Leyvikov).

PANCREAS, in various dis.

dysentery in child.)

(DYSENTERY, in inf. and child

pancreas funct. in)

ALYMOV, D.F.; DYSSA, F.M.; LEYVIKOV, M.Kh.; POGODINA, V.I.; NESTERENKO, P.G.;
SHIROKOV, A.Z.

Conformity of lower Carboniferous coal beds in the western Donets
Basin. Izv. DGI 29:3-18 '57. (MIRA 11:5)
(Donets Basin--Coal geology)

LEVIKOV, M. L.		PROCESS AND PROPERTIES MOST		JUN 7 1951	
AMS/A+B		551.570:551.49(02)			
26-113		[Meteorology, hydrology and hydrometry.] Moscow, Goststat, 1940. 171 p. 119 figs., 41 tables, 156 equations.			
MM-MH: As the author is concerned mainly with hydrological surveys and forecasts for the benefit of agriculture and reclamation, the main part of this textbook is devoted to discussion and illustration of instruments, equipment, formulas and tables (of a engineering type) for use in calculating actual or expected surface runoff from rain, showers or snow. There are no bibliographic references, nor is any mention made of work done by meteorologists or hydrologists outside of the USSR. The first part takes up the historical development of meteorology and hydrology and the hydrologic cycle, or water balance, of the earth and of individual river basins. Part two discusses the meteorological elements (pressure, temperature of soil and air, humidity, rainfall, snow cover, wind and evaporation) their observation, and weather forecasting. Part three goes very thoroughly into surface hydrology and forecasting. Part four, which comprises the last half of the text, is concerned with measurements and determination of runoff in small and large basins, going into great detail regarding formulas for estimation of stream flow on the basis of rainfall or snow melt, using various schemes and constants. The statistical treatment of data for significance is explained and illustrated in detail. Forms of all types for recording hydrologic data, charts of rainfall, snow and runoff for the USSR, tables of parameters for estimating shower or snow runoff, examples of calculations from nomograms and tables, and diagrams of scores of instruments or devices are included. Subject Headings: Meteorology, Hydrology, Textbooks.—J.R.					
ASB-55A METALLURGICAL LITERATURE CLASSIFICATION					
33000 51000000		33000 500000		33000 500000	
33000 51000000		33000 500000		33000 500000	

LEYVIKOV, M.L.

1-4E4D

✓ 8-5-9
 Leyvikov, M. I. Vovich. Meteorologiya, gidrologiya i gidrometriya. [Meteorology, hydrology and hydrometry.] 2d rev. ed. Moscow, Gos. Izd-vo Sel'khoz. Lit-ry, 1955. 510 p. 213 figs. (some fold), 46 tables, 21 refs., 165 eqs. D12- This second edition of the author's text (for use in hydrology courses for agricultural and hydrological engineers) contains about 40 pages more material and 60 more illustrations (and a few bibliographic references) than were found in the first edition (1949). Corrections and amplifications are distributed throughout the book. The main emphasis is on instruments, observations and measurements on various small and large basins of the U.S.S.R.

... precipitation ... both annual and seasonal ... in Europe ... the whole Union. For 1st ed. ... 2. Hydrology textbooks U.S.S.R. -M.R.

RED FE any

Leyvikov, M.L.

99-8-6/12

AUTHOR: Azarkovich, Ye. Sh., Engineer, and Leyvikov, M.L., Engineer

TITLE: Standards of Water Discharges at the Beginning of Pre-Seeding and Seeding Periods in the Upper Volga Basin (Normy stoka nachala predpossevnogo i posevnogo periodov v basseynе verkhney Volgi)

PERIODICAL: "Gidrotekhnika i Melioratsiya", 1957, Nr 8, pp 31-41 (USSR)

ABSTRACT: Generally, the dates of beginning of the pre-seeding and seeding periods have been established at drainage projects by one of the following methods: 1. statistical method, 2. in relation to the beginning of maximal spring floods, 3. according to the sum of average daily air temperatures beginning from the day of the disappearance of the snow cover. As these methods were inaccurate, the author recommends a new method of establishing standard water discharges (drainage discharges) at the beginning of the pre-seeding and seeding periods based on observations made on 34 discharge direction lines in the Upper Volga Basin (inclusive the Oka River). Seeding operations can be started for many early cultures

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99-8-6/12

Standards of Water Discharges at the Beginning of Pre-Seeding and Seeding Periods in the Upper Volga Basin.

(turnips, onions, radishes, etc) as soon as a permanent temperature of + 4°C at a depth of 0.4 m is reached, at which top soil conditions are favorable for germination and growth. Observations have shown that at average day temperatures of + 5°C it takes 7 days to warm the soil up to the aforementioned temperature and depth. When such observation data are available for a district, the beginning of the seeding period can be established, as well as the pre-seeding time, which commences 7 days earlier. Dates steadily exceeding the average day air temperature of + 5°C during spring can be established by the following interpolation formula:

$$S = \frac{K - a}{b - c} d + 15, \text{ whereby}$$

S - date of steady rise of the daily average air temperature above a certain value, - K - air temperature, for which it is necessary to establish the date of transition (in this case K = + 5°C, a and b - average monthly temperatures of the preceding month with a daily average air temperature less than + 5°C, and the following month with an average day temperature

Card 2/3

99-8-6/12

Standards of Water Discharges at the Beginning of Pre-Seeding and Seeding Periods in the Upper Volga Basin.

higher than $+5^{\circ}\text{C}$, d - number of days of the foregoing month. Dates obtained for the beginning of the pre-seeding period in the Upper Volga Basin by using this formula vary from 16 Apr to 22 April. The beginning of pre-seeding periods are established annually for every drainage basin, and the annual modules of water run-off calculations are based on average figures of 5-days periods, in which the beginning of the pre-seeding time, and 2 days before and after this date, are included. Average values of run-off modules for several years are derived from yearly averages. Modules of run-off at the beginning of a pre-seeding period in districts with uniform soils show a direct relation to the size of the drainage basin, and a reverse relation to the extent of woodlands. The article contains 1 figure, 4 tables, 4 diagrams and 5 Slavic references.

ASSOCIATION: VNIIGIM *All-U.S.S.R. Inst. Hydraulic Engineering and Soil Improvement (Moscow)*
 AVAILABLE: Library of Congress

Card 3/3

AZARKOVICH, Ye.Sh. (Moskva); LEYVIKOV, M.L. (Moskva)

Normal annual runoff and its variability in the case of small
rivers. Meteor.i gidrol. no.8:22-27 J1 [i.e.Ag.] '62. (MIRA 15:7)

(Runoff)

LEYVIKOV, Moisey L'vovich; AZARKOVICH, Yerukhim Shmerkovich; FLEKSER, Ya.N., doktor tekhn.nauk, retsenzent; IVANOV, A.D., inzhener-gidrotekhnika, retsenzent; ORLOVA, V.P., red.; DEYEVA, V.M., tekhn.red.

[Practical work in a course of meteorology, hydrology, and hydrometry] Praktikum po kursu meteorologii, gidrologii i gidrometrii. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 310 p. (MIRA 13:8)
(Hydrology--Problems, exercises, etc.)

AZARKOVICH, Ye.Sh.; LEYVIKOV, M.L.

Water level variations in lakes of the upper Volga Valley.
Meteor. i gidrol. no.4:47-51 Ap '62. (MIRA 15:5)
(Volga Valley--Lakes)

LEYVIKOV, V.

Aiming for a high title. Sov.shakht. 11 no.1:15-16 Ja '62.
(MIRA 14:12)

1. Nachal'nik otdela organizatsii truda tresta Shchekinugol'.
(Tula Basin--Coal miners)

LEYVIKOV, Ye.V.

We greet the Miner's Day by new labor achievements. Ugol' 34 no.8:18-19
Ag '59.. (MIRA 12:12)

1. Nachal'nik shakhty No.13/15 kombinata Tulaugol'.
(Tula Basin--Coal mines and mining)

LEYEB, Ya.B.; SHIRINYAN, K.G.

Lake deposits and neovolcanic products in Aginskiy District.
Trudy Arm.geol.upr. no.1:125-132 '57. (MIRA 12:1)
(Aginskiy District--Sediments (Geology))

LEYE, Ya.B.; LEYE, Yu.A.

Age of Tertiary vulcanogenic-sedimentary formations of
Shiraki Range (northern Armenia). I.A.B.Leie, I.U.A.Leie.
Dokl.AN Arm.SSR 31 no. 2:111-116 '60. (MIRA 13:11)

1. Institut geologicheskikh nauk Akademii nauk Armyanskoy SSR.
Predstavleno akademikom AN Armyanskoy SSR K.N.Paffengol'tsem.
(Shiraki Range--Geology, Stratigraphic)

LEYE, Yu.; OGANESYAN, L.

Jointing of tuffs from Ani deposits, IU.Leie, L.Oganesian. Prom.
Arm. 4 no.10:52-56 0 '61. (MIRA 14:11)
(Agin region--Volcanic ash, tuff, etc.)

LEYE, Yu.; OGANESYAN, L.

Jointing of tuffs of the Biurakan deposit. Prom. Arm. 6 no.6:
58-60 Je '63. (MIPA 16:8)

(Biurakan region---Volcanic ash, tuff, etc.)

MALKHASYAN, N.G.; LEYBE, Yu.A.

Age, genesis, and potential of the Kafan copper-complex metal
deposit. Trudy Arm.geol.upr. no.1:57-65 '57. (MIRA 12:1)
(Kafan region--Ore deposits)

Leyye, Yu. A.

11-58-6-11/13

AUTHORS: Kazaryan, G.A., Malkhasyan, E.G., and Leyye, Yu.A.

TITLE: On the Article of S.I. Balasanyan "On the Genesis of Basic Dyke Rocks of Armenia and Adjacent Parts of the Lesser Caucasus" (Po povodu stat'i S.I. Balasanyana "K genezisu osnovnykh daykovykh porod Armenii i prilegayushchikh uchastkov Malogo Kavkaza")

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1958, Nr 6, pp 105-108 (USSR)

ABSTRACT: This is a criticism of the above mentioned article published in Nr 7 of this periodical, 1957. The critics reproach the author for his incorrect interpretation of available data, his careless handling of references, and his lack of knowledge on the subject.
There are 5 Soviet references.

ASSOCIATION: Institut geologicheskikh nauk AN ArmSSR, Trest "Armtsvetmetrazvedka", Yerevan (Geological Institute of the Armenian SSR, The "Armtsvetmetrazvedka" Trust, Yerevan)

SUBMITTED: April 12, 1957

AVAILABLE: Library of Congress

Card 1/1

1. Geology 2. Rock-Determination

LEYE, Yu. A.

Spectral analysis of ore-bearing rocks in the Kafan complex copper deposit. Izv. AN Arm. SSR. Ser. geol. i geog. nauk 11 no.2:75-79 '58. (MIRA 11:9)

1.Armyanskoye Geologicheskoye Upravleniye.
(Kafan District--Ores--Spectra)

14(5)

SOV/172-11-5-8/9

AUTHORS: Malkhasyan, E.G., Leyye, Yu.A., Vanyushin, S.S.

TITLE: Reply to Criticism of R.A. Arakelyan and G.O. Pidzhyan (Otv
na kritiku R.A. Arakelyana i G.O. Pidzhyana)

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Seriya geologicheskikh i
geograficheskikh nauk, 1958, Vol 11, Nr 5, pp 61-66 (USSR)

ABSTRACT: The article is a reply to the critical review offered by R.A.
Arakelyan and G.O. Pidzhyan concerning certain works published
by the authors pertaining to the geology of the Kafanskoye rud-
noye pole (Kafan Ore Fields). The authors do not agree with a
number of statements made by their critics and furnish justifi-
cations in favor of their findings also by referring to the in-
vestigations of a number of geologists such as I.G. Magak'yan,
S.S. Mkrtchyan, K.N. Pafengol'ts, A.T. Aslanyan, S.S. Vanyushin,
A.Ye. Kocharyan who based their works on the material collected

Card 1/2

30V/172-11-5-8/9

Reply to Criticism of R.A. Arakelyan and G.O. Pidzhyan

by V.G. Grushevoy, V.N. Kotlyar, A.L. Dodin, Yu.A. Arapov.
There are 5 Soviet references.

SUBMITTED: August 14, 1958

Card 2/2

LEYE, Yu.A.

New data on the facies, age and, relationship of quartz
porphyries of the Kafan ore field. Dokl. AN Arm.SSR 29 no.3:
115-117 '59. (MIRA 13:2)

1. Nauchno-issledovatel'skiy gorno-metallurgicheskiy institut
pri Sovnarkhoze ArmSSR. Predstavleno akademikom AN ArmSSR
S.S. Mertschyanom.

(Kafan region--Porphyry)

LEYE, Ya.B.; LEYE, Yu.A.

Age of Tertiary vulcanogenic-sedimentary formations of
Shiraki Range (northern Armenia). I.A.B.Leie, I.U.A.Leie.
Dokl.AN Arm.SSR 31 no. 2:111-116 '60. (MIRA 13:11)

1. Institut geologicheskikh nauk Akademii nauk Armyanskoy SSR.
Predstavleno akademikom AN Armyanskoy SSR K.N.Paffengol'tsem.
(Shiraki Range--Geology, Stratigraphic)

MALKHASYAN, E.G.; LEYEE, Yu.A.

Basic characteristics of the history of the development of the
Mesozoic volcanism in southern Armenia. *Biul.MOIP.Otd.geol.* 35
no.4:58-65 J1-Ag '60. (MIRA 14:4)
(Armenia--Volcanoes)

LEYE, Yu.A.

Occurrence of molybdenite in the Kafan ore field linked with
Upper Bajocian Volcanic activity. Dokl. AN Arm. SSR 36 no.3:
169-172 '63. (MIRA 16:10)

1. Nauchno-issledovatel'skiy gornometallurgicheskiy institut
soveta narodnogo khozyaystva Armyanskoy SSR. Predstavleno
akademikom AN Armyanskoy SSR Magak'yanom.

MALKHASYAN, E.G.; LEYBE, Yu.A.

Geology and petrography of Jurassic albitophyres in the Armenian
S.S.R. Izv. AN Arm. SSR. Geol. i geog. nauki 16 no.3:15-28 '63.
(MIRA 16:9)

1. Institut geologicheskikh nauk AN Armyanskoy SSR i Nauchno-
issledovatel'skiy gornometallurgicheskii institut pri Sovete
narodnogo khozyaystva Armyanskoy SSR.

MALKHASYAN, E.G.; LEYBE, Yu.A.

Relations between the deposits of sulfide ores in Armenia and the Jurassic volcanic formation. Trudy Lab. paleovulk. Kazakh. gos. un. no.2:171-185 '63.

(MIRA 17:11)

1. Institut geologicheskikh nauk AN Armyanskiy SSR.

OGANESYAN, L.V., aspirant; LEYE, Yu.A.

Using a minerogeochemical method in the investigation of sub-volcanic intrusion-extrusion complexes; based on a study of the Kafar ore body. Izv.vys.ucheb.zav.; geol. i razv. 8 no.2:50-59
F 15. (MIRA 18:3)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.

LEBEDEV, Aleksey Petrovich; MALKHASYAN, Eduard Gurgenovich.
Prinimal uchastiye LEYE, Yu.A.

[Jurassic volcanism of Armenia] Iurskii vulkanizm Armenii.
Moskva, Nauka, 1965. 166 p. (MIRA 18:7)

1. Institut geologicheskikh nauk Armyanskoy SSR (for
Malkhasyan). 2. Institut geologii rudnykh mestorozhdeniy
petrografii, mineralogii i geokhimii AN SSSR (for Lebedev).

LEYBOV, R.M., prof., doktor tekhn. nauk, red.; OGLOBLIN, D.N.,
prof., doktor tekhn. nauk, red.; NAYDYSH, A.M., prof.,
red.; KSENOFONTOVA, A.I., prof., red.; MEDVEDEV, B.I.,
dots., red.; TARANOV, P.Ya., dots., red.; LEYBUOV, R.M.,
prof., red.; SHTOKMAN, I.G., prof., red.; POLESIN, Ya.L.,
otv. red.; YEROKHIN, G.M., tekhn. red.

[Safety measures in the coal industry] Tekhnika bezopas-
nosti v ugol'noi promyshlennosti. Moskva, Gosgortekhnizdat,
1963. 317 p. (MIRA 16:12)

1. Donetskii politekhnicheskii institut (for Taranov,
Shtokman).

(Coal mines and mining—Safety measures)

LEYZER, I. G.

USSR/Physics - Acoustics

Mar 49

Architectural Acoustics in the USSR," N. N. Andreyev, V. S. Grigor'yev, I. G. Leyzer, L. D. Rozenberg, B. D. Tartakovskiy

"Uspekhi Fiz Nauk" Vol XXXVII, No 3, pp 269-315

Lengthy, general, historical, and nonmathematical discussion of acoustics of chambers; sound absorption; sound intensification; sound insulation; sound measurements. Gives extensive bibliography of 421 references covering all Russian works on architectural acoustics from 1861 to 1948.

PA 170T98

YUDIN, Yevgeniy Yakovlevich.; LEYZER, I.G., kand. tekhn. nauk, nauchnyy red.;
NINEMYAGI, D.K., red. izd-va.; LAGUTINA, I.M., tekhn. red.;
EL'KINA, E.M., tekhn. red.

[Damping noises of ventilation apparatus] Glushenie shuma
ventiliatsionnykh ustanovok. Moskva, Gos. izd-vo lit-ry po stroit.,
arkhit. i stroit. materialam, 1958. 158 p. (MIRA 11:11)
(Ventilation--Equipment and supplies)
(Noise)

LEYZER, I. G.

"Additional Sound Absorption in Rooms."

paper presented at 4th All-Union Conf. on Acoustics, Moscow, 26 May - ⁴ Jun 58.

LEYZER, I. G.

"Employing Models in the Study of Sound-Insulating Properties of Boundaries."

paper presented at the 4th All-Union Conf. on Acoustic⁴-. Moscow 26 May - ~~2~~ June 58.

LEIZER, I.G.

"Research in Soundproofing, etc.," in book Questions of Sound Isolation (Proofing)
and Architectural Acoustics, State Publishing Office for Literature on Construction,
Architecture and Construction Material, Moscow, 1959

1. LEYZERAKH, S.
 2. USSR (600)
 4. Vitamins-Therapeutic Use
 7. Lupus tuberculosis and the effect of large doses of vitamin D₂ in treating it. Latv. PSR Zin. Akad. Vestis No. 12, 1951.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

LEYZERAKH, S. [Leizeraha, S.]

Malignant degeneration of lupus tuberculous depending on the
use of massive doses of X-ray irradiation. Vestis Latv ak
no.6:119-121 '62.

*

LEYZERAKH, S.

Changes in the waste eliminating function of the kidneys during the combined treatment of patients with lupus tuberculosis by means of vitamin D₂ + phthivazide and phthivazide + streptomycin.
Izv.AN Latv.SSR no.6:97-104 '63. (MIRA 17:4)

LEYZERIN, G.V., starshiy inzh.-metodist

New exhibits. Inform. biul. VDNKH no.8:12.13 Ag '63.
(MIRA 17:8)

LEYZERIN, G.V.

Scientific Research Institute for the Technology of Motor
Vehicle Manufacture at the Exhibition of the Achievements
of the National Economy. Avt. prom. 31 no.1:43-44 Ja '64.
(MIRA 18:3)

1. Vystavka dostizheniy narodnogo khozyaystva SSSR.

LEYZBERMAN, L.-I.

Malarial Fever

Inter-province conference on control of malaria and helminthiasis,
Med. paraz. i paraz. bol No. 1, 1953

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

LEYZERMAN, L. I., Cand of Med Sci; MITARNOVSKIY, V. M., Cand of Med Sci., REMENNIKOVA, V. M.,
Cand of Med Sci; KASIMOV, A. A., :BERD'YEV, Kh. B., and POKROVSKIY, S. N. Prof.

"Plans for liquidating malaria during the Five-Year Plan" a paper read at
the All-Union Conference for Combating Parasitic Diseases held in Moscow,
10-11 Apr 1956

SO: Sum 1239

LEYZERMAN, L.I.

LEYZERMAN, L.I.; MITARNOVSKIY, V.M.

Tropical malaria and means for eradicating it in southeastern
European Russia. Med.paraz. i paraz.bol.supplement to no.1:20-21
'57. (MIRA 11:1)
(MALARIA)

LETTERHITING.

POKROVSKIY, S.N.; LMYZNERMAN, L.I.

Malaria control in the R.S.F.S.R. following World War II; 1946-1956. Med.paraz. i paraz.bol. 26 no.5:575-578 S-O '57. (MIRA 11:2)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva zdravookhraneniya RSFSR.

(MOSQUITOES,

eradication in Russia (Rus))

LEYZERMAN, L.I., MITARNOVSKIY, V.M.

Distribution of tertian malaria with prolonged incubation time in the
southeastern part of European Russia. Med.paraz. i paraz.bol.
27 no.3:357-358 My-Je '58 (MIRA 11:7)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva
zdravookhraneniya RSFSR (dir. instituta - prof. S.N. Pokrovskiy).
(MALARIA, epidemiology
in Russia, tertian malaria (Rus))

LEYZERMAN, L.I., POKROVSKIY, S.N.

Krasnoyarsk interprovince conference on diseases with natural endemic
aren. Med.paraz. i paraz. bol. 27 no.3:381-382 My-Je '58 (MIRA 11:7)
(COMMUNICABLE DISEASES)

LEYZERMAN, L.I.; MITARNOVSKIY, V.M.

Antimalarial measures. Zdrav. Ros. Feder. 5 no.1:36-38 Ja '61.
(MIRA 14:1)

1. Iz Respublikanskogo instituta malyarii i meditsinskoy parazitologii
(dir. - prof. S.N. Pokrovskiy) Ministerstva zdravookhraneniya RSFSR.
(MALARIA)

POKROVSKIY, S.N.; LEYZERMAN, L.I.; IVANOVA, L.M.; PIVEN, G.G.

Brief news. Med. paraz. i paraz. bol. 32 no.1:124-125 Ja-F'63.
(MIRA 16:10)

LEYZERMAN, L.I.; GORYACHEVA, L.K.

Interprovince scientific and practical conference on control
of helminthiasis in the Volga Valley. Med. paraz. i paraz.
bol. 33 no.1:125-126 Ja-F '64 (MIRA 18:1)

LEYZERMAN, L.I.

Scientific and Practical Conference on the Control of hel-
minthiasis in the districts of Northern Caucasus. Med.
paraz. i paraz. bol. 33 no.2:252-253 Mr-Apr '64 (MIRA 18:1)

LEYZERMAN, L.I.; GORYACHEVA, L.K.

Interprovince scientific and practical conference on the control of helminthiases in the central regions of the R.S.F.S.R.
Med. paraz. i paraz. bol. 32 no.6:754-755 N-D '63
(MIRA 18:1)

POKROVSKIY, S.N.; LEYZERMAN, L.I.; STETSEKOV, P.A.

First scientific and practical conference on toxoplasmosis
at the Institute of Medical Parasitology of the Ministry
of Health of the R.S.F.S.R. Med. paraz. i paraz. bol. 32
no.6:755-756 N-D '63 (MIRA 18:1)

LEYZERMAN, V.Yu., inzh.

Ship launching sideways from a free-floating pontoon. Sudostroenie
25 no.1:55-58 N '59. (MIRA 13:4)
(Ships--Launching)

N L 95/11-66

ACC NR: AP5028405

SOURCE CODE: UR/0229/65/000/010/0007/0010

AUTHOR: Leyzerman, V. Yu. 55

ORG: none

TITLE: Approximate calculation of a ship's side launching on ways resting on a floating pontoon

SOURCE: Sudostroyeniye, no. 10, 1965, 7-10

TOPIC TAGS: ship side launching, launching pontoon, shipbuilding engineering, ship

ABSTRACT: The side launching of a ship on a sliding ways resting on a floating pontoon requires a complex calculation involving the numerical integration of a system of nonlinear second-order differential equations for each launching period. A simplified approximate method for calculating such a side launching is presented. Side launching over a floating pontoon can easily be practiced under any yard conditions. It is widely used for launching small 180—400-ton craft, but calculations and experience show that it may also be used for launching 1500—2000-ton vessels. During the launching, which is divided into 7 periods, the ship begins to move on the shoreside sliding ways with a constant inclination (first period) and then proceeds on the pontoon-supported ways where its inclination rises in proportion to its motion. The second period ends when the pontoon ways come off the shoreside pillar support. The third period ends when the pontoon's bottom rear edge touches the shore wall, and the

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ACC NR: AP5028405

fourth ends with the beginning of the ship's tipping over the pontoon's front edge. Equations are given for the main parameters, i.e., the pontoon's inclination, angular velocity, center of buoyancy, and center of gravity, the distance the ship has moved, and its linear speed, which characterize the launching process within each period. The duration of periods 2 to 7, where the inclination of the pontoon is constantly increasing, is found as a positive radical of a second-degree equation of the form $t^2 + pt + q = 0$, for which equations are given to determine p and q for periods 2 to 4. For periods 5 to 7, p and q can be determined the same way as for a conventional side launching, considering the changed initial conditions. Orig. art. has: 5 figures. [GE]

SUB CODE: 13/ SUBM DATE: none/ ATD PRESS: 4150

Card 2/2

BOGDANOV, I.V., inzh.; LEYZEROV, A.T., inzh.; BERNSTEIN, M.D., inzh.

Wheels with rubber elements used for rail transport. Zhel. dor.
transp. 41 no.5:85-87 My '59. (MIRA 12:7)
(Car wheels)

AUTHOR: Leyzerov, I.

SOV/68-59-6-19/25

TITLE: At the Makeyevka Coking Works (Na Makeyevskom
koksokhimicheskom zavode)

PERIODICAL: Koks i Khimiya, 1959, Nr 6, p 60 (USSR)

ABSTRACT: The plant for dephenolising effluent water is being erected. Creosote oil will be used as an extracting agent, but the use of benzole is also envisaged. The majority of pipelines of the dephenolising plant are being made from glass tubes.

Card 1/1

Leyzerov, I. M.

68-10-15/22

AUTHOR: Leyzerov, I.M.

TITLE: The Use of Magnesite for the Decomposition of Combined Ammonia (Primeneniye kausticheskogo magnezita dlya razlozheniya svyazannykh soley ammiaka)

PERIODICAL: Koks i Khimiya, 1957, Nr 10, pp.55-56 (USSR)

ABSTRACT: The use of magnesium hydroxide in the form of milk of magnesia for the decomposition of ammonia salts in ammonium distillation columns instead of milk of lime is proposed. Laboratory experiments indicated that the efficiency of magnesium hydroxide in the decomposition of ammonium salts is equivalent to that of calcium hydroxide. The use of magnesia will prevent the formation of calcium sulphate which, due to its low solubility, precipitates in the column, causing blockages. It is thought that the increase in costs will be more than compensated by a decrease in the cost of cleaning the column.

ASSOCIATION: Makeyevka Coke Oven Works (Makeyevskiy Koksokhimicheskiy Zavod)

AVAILABLE: Library of Congress.

Card 1/1

SHEVCHENKO, A.I.; AYZENBERG, L.G.; SMOL'YAKOV, I.K.; LEYZEROV, I.M.

Replenishment of the operating solution of sulfur-removing units
with liquid potassium hydroxide. Koks i khim. no.4:42-43 '61.
(MIRA 14:3)

1. Yasinovskiy koksokhimicheskiy zavod (for Shevchenko, Ayzenberg,
Smol'yakov). 2. Makeyevskiy koksokhimicheskiy zavod (for Leyzerov).
(Coke industry—By-products) (Sulfur)

LEIZEROV, YA. S.

LEIZEROV, IA.S. Stel worker A.P. Zhuravlev. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po chernoi i tsvetnoi metallurgii, 1953. 35 p. (55-41079)

TN704.R9L37

SOV/130-58-9-5/23

AUTHORS: Kablukovskiy, A.F., Leyzerov, Ya.S. and Solodikhin, I.P.

TITLE: Improvement of the Melting Technology of Resistance Alloys in Electric Furnaces (Usovershenstvovaniye tekhnologii vyplavki splavov soprotivleniya v elektropechakh)

PERIODICAL: Metallurg, 1958, ³/₁ Nr 9, pp 12 - 15 (USSR)

ABSTRACT: Alloys for resistance-furnace windings are difficult to produce, the high proportion of rejects leading to high costs. In order to improve the melting of these alloys, the work described was carried out at the "Elektrostal'" Works (with the participation of N.A. Shiryayev, V.Ye. Voynovskiy, M.Ya. Dzugutov, V.S. Nikol'skiy, Yu.V. Vinogradov and others). The alloys studied were 20-80 nichrome Kh20N80 and iron-chromium-aluminium alloy (chromal) OKh25Yu5 with the respective compositions according to GOST 5632-51 of (Table 1): 0.15, 0.06% C max; 0.50, 0.60% Si max; 1.50, 0.70% Mn max; 20.0-23.0, 23.0-27.0% Cr; 75.0-78.0, 0.60% max Ni; 0, 4.50-6.50% Al; 0.025, 0.030% S max; 0.030, 0.035% P max; remainder Fe. For nichrome, the old procedure was to melt electrolytic nickel with metallic chromium, deoxidising in two stages with silico-calcium in the first (for slag) and silico-calcium (60-65% Si, 25-30% Ca) or silico-zirconium (30-35% Si, 20-25% Zr) in the second, and

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Improvement of the Melting Technology of Resistance Alloys in Electric
Furnaces SOV/130-58-9-5/23

adding ferrotitanium 5-10 min before tapping. The new method is based on the melting of a charge with up to 60% of alloy scrap containing nickel, chromium and titanium, mark N1 nickel and mark 1 and Z metallic chromium being added in the required quantities; deoxidation by submerging silico-calcium or metallic calcium in the metal with the aid of rods as well as by diffusion through the slag. The charge, to which selected lime and fluorspar are added, is melted at full power and mechanically stirred. Samples are taken for malleability after which deoxidation is effected and further samples are taken (figure). Good plasticity is obtained with careful control of the calcium content. Metal temperature in the ladle is 1 520 - 1 540 °C and ingots are top or bottom poured. A hot-top composition (65% TiO₂ and 35% Al powder) is used together with white slag and the ingots are allowed to cool in the mould for at least two hours. The new method has enabled rolling in a 600-mill to be used instead of forging and accelerated and improved the melting process and the alloy quality

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